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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,715	10/29/2003	Susumu Yamada	S008-P03194US	6461

33356 7590 04/26/2006

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EXAMINER
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FANTU, YALKEW

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/696,715

**Applicant(s)**

YAMADA ET AL.

**Examiner**

Yalkew Fantu

**Art Unit**

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments with respect to claims 1-16 regarding Takahashi have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-16 are rejected under 35 U.S.C. 102 (b) as being anticipated by Makhija (US 6,037,778).

Regarding claim 1, Makhija discloses a battery voltage detecting section (Fig. 6, 40 and 42) for detecting a voltage of a battery 22 a resistor R1 (and /or R2) and a switching element 34 (and /or 38); and a battery controlling section 24 for acquiring information relating to a change between the voltage of said battery detected by said battery voltage detecting section 40,42 when the switching element ON and OFF (Col. 5, 10-17; col. 4, lines 557-58). Battery controlling section determines a residual capacity based on information relating to the change in voltage (Col. 5, lines 18-66).

Regarding claim 2, Makhija discloses voltage detecting section 40, 42 comprises first R3/R4 and second R4/R3 voltage dividing resistors that are connected to said resistor R1/R2 and said switching element 34/38 in parallel, and a voltage at a

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connection point between said first R3 and second R4 voltage dividing resistors is detected as the voltage of said battery 2.

With respect to amended claims 3 and 6 Makhija discloses information relating to the change amount between the voltage of said battery detected by battery 22 voltage detecting section 40 when said switching element 34/38 is OFF and the voltage of said battery 22 detected by battery voltage detecting section 40 when said switching element is ON (Col. 5, 10-17; col. 4, lines 557-58).

With respect to claims 4, 7, 9 and 12 Makhija discloses voltage recovery time measurement section for measuring a time period (Fig. 4) from a time when said switching element is turned off to a time when the voltage of the battery detected by battery voltage detecting section 40 recovers to a predetermined voltage value (Col. 8, lines 21-60).

Regarding claims 5, 8, 10, 11, 13 and 14 Makhija discloses a storing section for storing characteristic information of relation between the information relating to the change (Fig. 6, 24) and residual capacity (Col. 5, lines 18-66) of said battery 22, where battery controlling section 24 to said characteristic information to determine the residual capacity (Col. 5, lines 18-66) of battery 22.

With respect to claims 15, Makhija discloses an electronics device (Fig. 6, 20), the battery controlling circuit 24 wherein operating power is supplied from the battery (Col. 11, lines 33-41).

With respect to claim 16, Makhija discloses inherently that resistor is a component consuming power based on said operating power.

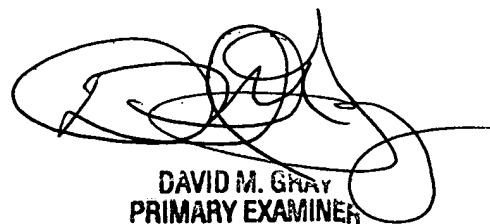
***Conclusion***

Applicant's arguments filed on 03/16/2006 have been fully considered but the references used in the Office Action disclose teach the invention applicants requested in the claims. Therefore, the action is final by necessity of amendments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yalkew Fantu whose telephone number is 571-272-8928. The examiner can normally be reached on (M-F);(8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID M. GRAY  
PRIMARY EXAMINER